

REMARKS

The Examiner has rejected claims 1-7 and 10 under 35 U.S.C. 103(a) over Hoopes (USP 6,058,171) in view of Battista et al. (USP 5,519,774, hereinafter Battista). The Applicants respectfully traverse this rejection.

The Examiner acknowledges that Hoopes does not teach the creation of a time-domain signal based on a measure of the energy content in the signal on a subscriber line at predetermined time intervals, and relies on Battista for this teaching.

Conventional systems, such as disclosed by Battista, include highly selective narrow-band filters for detecting the energy at select frequencies, and the Applicants' invention eliminates the need for such filters via the creation of the claimed time-domain signal.

Conventional systems analyze the signal on a subscriber line in the frequency-domain, because the control signals on a subscriber line typically occur at particular specific frequencies. However, the Applicants note that the particular frequencies used for similar control functions differ among countries, and an instrument that is designed for use in the United States, for example, will not operate properly in Europe. To operate properly in both the U.S. and Europe, a conventional telephone instrument would need to include dual sets of narrow-band filters, or a set of programmable-frequency filters, which would substantially increase the cost of the instrument. (Applicants' page 1, lines 8-13; page 3, lines 9-18.)

Each of Battista's figures 1 through 11 clearly indicates the conventional frequency-selective technique for distinguishing control signals from other components of the signal on the subscriber line.

The Applicants recognized that a transformation of the signal on the subscriber line into a signal in the time-domain would allow for the identification of control signals without the need for frequency-selective filters, and therefore would allow for the identification of control signals at different frequencies without the need for multiple frequency-selective filters. (Applicants' page 1, lines 20-27.)

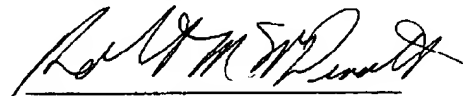
To further clarify the distinction of the Applicants' invention from the prior art, each of the independent claims are amended herein to recite that energy detection

arrangement determines the energy contained in the entirety of the signal on the subscriber line.

Because neither Hoopes nor Battista, individually or collectively, teach or suggest the creation of a signal based on the signal-energy in entirety of the signal on the subscriber line at predefined time intervals, as specifically claimed in each of the Applicants' independent claims, the Applicants respectfully request the Examiner's reconsideration of the rejection of claims 1-7 and 10 under 35 U.S.C. 103(a) over Hoopes in view of Battista.

The Examiner has rejected claims 8 and 9 under 35 U.S.C. 103(a) over Hoopes in view of Battista and further in view of Rosen et al. (USP 5,864,607, hereinafter Rosen). The Applicants respectfully traverse this rejection, based on the remarks above regarding claim 1, upon which these rejected claims depend, and respectfully request the Examiner's reconsideration of the rejection of claims 8 and 9 under 35 U.S.C. 103(a) over Hoopes in view of Battista and Rosen.

Respectfully submitted,



Robert M. McDermott, Esq.
Reg. No. 41,508
804-493-0707

CERTIFICATE OF MAILING OR TRANSMISSION

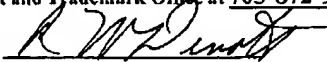
It is hereby certified that, on the date shown below, this correspondence is being:

☐ deposited with the United States Postal Service with sufficient postage as first-class mail in an envelope addressed to: ASSISTANT COMMISSIONER FOR PATENTS, WASHINGTON, DC 20231.

☒ transmitted by facsimile to the United States Patent and Trademark Office at 703-872-9314.

On 1 December 2002

By



VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Twice Amended) A wire-bound telecommunication device comprising:

terminals for coupling the device to a subscriber line of a telecommunication network,

a transmission circuit, and

a signal energy detecting arrangement that is configured to determine [, characterized in that the signal energy detecting arrangement comprises means for determining] a time-domain signal representing [the] signal energy of a substantial entirety of the signal on the subscriber line in a predetermined time interval.

10. (Amended) A circuit for use in a wire-bound telecommunication device comprising terminals for coupling the device to a subscriber line of a telecommunication network and a transmission circuit, the circuit comprising

a signal energy detecting arrangement that is configured to determine [, characterized in that the signal energy detecting arrangement comprises means for determining the signal energy] signal energy of a substantial entirety of the signal on the subscriber line in a predetermined time interval.